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February 16, 1995

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: WT Docket No. 94-148

DOCKET FILE COPY ORIGINAL

Dear Mr. Caton:

In the above-referenced Notice of Proposed Rule Making ("NPRM"), the Commission proposes to simplify the rules for Part 21 and Part 94 fixed microwave services and to consolidate these rules into a new Part 101 so they are "user friendly."¹ Pursuant to Section 1.415 of the Commission's Rules,² Alcatel Network Systems, Inc. ("ANS"),³ by its attorney, hereby comments on the NPRM.

The Fixed Point-to-Point Communications Section, Network Equipment Division of the Telecommunications Industry Association ("TIA"), and the National Spectrum Managers Association,

¹NPRM at paras. 1 and 21.

²47 C.F.R. Section 1.415 (1989).

³ANS is a wholly-owned subsidiary of Alcatel Alsthom ("Alcatel"), one of the world's largest corporations (with annual sales in excess of \$30 billion) and the world's largest manufacturer and supplier of telecommunications equipment. In particular, Alcatel is the world's largest independent manufacturer and supplier of microwave radios. Formerly Collins Radio and Rockwell International, ANS, with over \$750 million in annual sales, is a world leader in manufacturing microwave and light wave transmission systems. ANS' equipment is used for a wide range of services, including short, medium and long-haul voice, video and data transmission. Its microwave customers include all the Bell Operating Companies, most major independent telephone companies, cellular operators, power and other utility companies, oil companies, railroads, industrial companies, and state and local government agencies.

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Inc. ("NSMA"), are filing joint comments on the NPRM. In these comments, TIA and NSMA set forth their general support for the Commission's proposals.

TIA and NSMA also request that the Commission adopt certain other changes to the proposed Part 101 which would ensure that private and common carrier fixed point-to-point microwave licensees could continue serving the public interest. ANS has been involved actively with TIA and NSMA in developing these proposals. It enthusiastically supports the proposals and urges their prompt adoption.

Specifically, TIA and NSMA propose that the Commission, as part of the NPRM, revise the proposed rules so that: (i) private and common carrier fixed point-to-point microwave users are treated the same; (ii) user-related requirements, such as frequency coordination, interference protection, and transition to a new Part 101, promote spectral efficiency and interference protection; and (iii) equipment-related requirements, such as antenna standards and Automatic Transmitter Power Control ("ATPC"), reflect industry standards:

EQUAL TREATMENT FOR PRIVATE AND COMMON CARRIER USERS

Private and common carrier fixed point-to-point microwave users are unique in many ways. These differences must be preserved as much as possible in the Part 101 rules. Nevertheless, to fulfill the Commission's obligations in the NPRM, it is essential that both classes of users generally must be subject to the same technical standards:

- All technical rules governing Part 21 and Part 94 fixed point-to-point microwave users must be consolidated into the proposed Subpart C (Technical Standards). All technical rules in either Subpart H (Private Operational Fixed Microwave Service) or Subpart I (Point-to-Point Microwave Radio Service) must be deleted. The frequency tables in Subpart H and Subpart I must be combined into a single table (the new Section 101.147 proposed by TIA/NSMA) in Subpart C.
- All non-technical rules applicable to private carrier and common carrier services, such as eligibility and permissible communications, must remain in Subparts H and I, respectively. In addition, Section 101.3 must be revised to include specific definitions for "Private Operational Fixed Point-to-Point Microwave Service" and for "Common Carrier Fixed Point-to-Point Microwave Service." Subparts H and I, respectively, should be renamed accordingly.
- Private and common carriers must be subject to the same application, authorization, and construction rules. In the NPRM, the Commission inexplicably does not propose such equal treatment. Private carriers should be: (i) eligible for temporary fixed authorizations in the same manner as common carriers are in proposed Sections 101.715 and 101.717 (see the TIA/NSMA proposed Section 101.31); (ii) subject to a single set of application content requirements, which must obligate the applicant to specify

the equipment (including antennas) for its system in the application; and (iii) required to use the same application forms. Under Part 101, common carriers must be able to construct, but not operate, prior to licensing in the same manner as private carriers (which is proposed in pending CC Docket No. 93-2).

USER RELATED ISSUES

While the proposals in Part 101 significantly improve the ability of users to operate in a spectrally efficient, interference-free environment, the Commission must clarify and revise certain of these proposals to optimize their utility:

- Standards for determining what constitutes a "major" amendment (Section 101.29) and for determining how to process modification applications (Sections 101.59 and 101.61) must be revised to reflect industry usage.
- The construction period for both private and common carriers should be 18 months instead of 12 months (Section 101.63). This increase is necessary to protect licensees in case of weather problems or in case of the anticipated shortage of resources (e.g., tower sites, construction crews, engineering consultants, and equipment) resulting from the influx of personal communications service ("PCS") applicants and re-located 2 GHz fixed point-to-point microwave licensees.
- No transition period to the Part 101 rules is proposed, which is a serious oversight. In Part 101, substantive changes will be made to corresponding rules in Parts 21 and 94, such as interference protection, frequency coordination, digital loading standards, and antenna requirements. TIA and NSMA propose that the Commission establish an effective date for Part 101, and that all existing licensees or pending applicants (including applications for modifications and expansions) as of that date are grandfathered under Parts 21 and 94.
- The proposed frequency coordination (Section 101.103), interference protection (Section 101.105), frequency tolerance (Section 101.107), and bandwidth (Section 101.109) rules generally are acceptable. However, the Commission must: (i) make it clear that the frequency coordination rules apply both to private and common carriers; (ii) prescribe interference resolution dispute mechanisms to safeguard users as PCS licensees increase; (iii) permit relaxation of interference criteria if both parties consent (as is done currently under Section 94.15(b)(2)); (iv) define the "practical threshold" for determining acceptable analog interference under Section 101.105(b),

based upon TIA's Bulletin 10-F⁴ or any other suitable engineering standard; (v) revise the frequency tolerance rule to include specifications for the 4, lower 6, and 11 GHz bands and for heterodyne equipment; and (vi) specify the maximum bandwidth for individual frequency bands.

- Minimum capacity and loading requirements must be revised. Analog modulation requirements must be specified. Digital modulation specifications must apply to frequencies below 19.7 GHz, instead of the 15 GHz threshold proposed in Section 101.141. Loading requirements must apply only to commercially available equipment. Voice channel requirements for digital transmission equipment must be eliminated.

EQUIPMENT ISSUES

The proposed Part 101 rules encompass several equipment-related issues. Certain of these proposals must be revised:

- In Section 101.115, changes must be made to cover fixed stations operating at 900 MHz or higher and to clarify the requirements for antenna upgrades. In Section 101.117, antenna polarization must be defined to include only vertical or horizontal polarization, which is consistent with standard industry usage.
- The use of ATPC is an essential tool in maximizing the number of microwave systems that can be engineered in a particular geographic area. Unfortunately, the Commission disagrees and does not propose using ATPC in Part 101. This decision is inappropriate. ATPC must be used based upon the guidelines established in TIA Bulletin 10-F. Using these industry guidelines, the maximum power would be specified in the license, but the licensee would have the option to reduce power to the extent necessary to optimize the number of paths that could be established. Most of the time, the user operates at the lower power and the maximum, licensed power is used only when necessary. Thus, use of ATPC does not require any change in Commission record keeping, licensing or filing requirements.
- Station record keeping requirements must be retained to ensure proper operation and to facilitate problem correction.

Adoption of a uniform set of rules for private and common carrier fixed point-to-point microwave licensees and applicants is timely and critical. These private and common carriers increasingly share

⁴Telecommunications Systems Bulletin No. 10-F, Interference Criteria for Microwave Systems ("Bulletin 10-F").

many frequency bands, including the five (5) bands above 3 GHz recently reallocated to accommodate users which must relocate to clear spectrum for emerging technologies, including PCS.

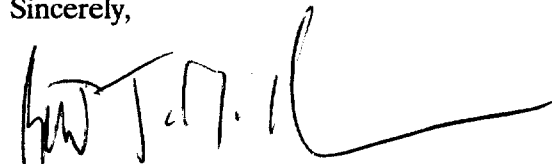
The Part 101 technical rules must be in place before PCS licenses are granted and before the 2 GHz users commence relocation. These rules are needed to guide how the former 2 GHz fixed licensees will operate in the new bands. If such rules are not in place, implementation of PCS could be delayed significantly due to a backlog of 2 GHz relocation applications, waiver requests by such applicants, and uncertainty over which rules apply.

In the Second Report and Order for ET Docket No. 92-9, when the Commission reallocated the bands above 3 GHz, it expressly postponed consideration of various permanent technical rules for Part 21 and Part 94 licensees.⁵ The importance of adopting the technical recommendations made in the TIA/NSMA joint comments cannot be overemphasized. These rules should have been adopted in the Second Report and Order, but the Commission decided to wait until initiating the rulemaking for consolidating Parts 21 and 94. The entire fixed point-to-point microwave industry has relied on the Commission's promise to consider the technical proposals deferred from ET Docket No. 92-9 and has waited over 18 months for this opportunity to re-submit them.

With minor exceptions, the TIA/NSMA proposals repeat the ET Docket No. 92-9 proposals and thus must be considered fully by the Commission and adopted in this proceeding. Any further delay only would jeopardize the public interest by disrupting deployment of PCS and other emerging technologies, relocation of 2 GHz fixed microwave users, and continued availability of all fixed point-to-point microwave radio services.

Should there be any questions concerning these comments, please contact the undersigned counsel for ANS.

Sincerely,

A handwritten signature in black ink, appearing to read 'RJM', followed by a long horizontal flourish.

Robert J. Miller

RJM/dwt

204181/gw03

⁵Redevelopment of Spectrum to Encourage Innovation In the Use of New Telecommunications Technologies, Second Report and Order, ET Docket No. 92-9, 8 FCC Rcd 6495, 6519-20 (1993) ("Second Report and Order"), modified, Memorandum Opinion and Order, 9 FCC Rcd 1943 (1994).